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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
NEUMANN

Serial No.: 08/871,004

Filing Date: June 6, 1997

Attorney Docket No.: NEU-101

Title: CAPSICUM BASED  
INSECTICIDE  
AND METHOD OF USE  
(once amended)

**DECLARATION OF ROBERT HEINZ NEUMANN**

Date Mailed: August 3, 1998

Examiner: Lavinder, J.

Group Art Unit: 3616

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Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**DECLARATION OF ROBERT HEINZ NEUMANN**

I, Robert Heinz Neumann, hereby declare under penalty of perjury that the following is true and accurate, and that this declaration is based on my own personal knowledge as well as on information and belief:

1. I am the sole inventor of the subject matter claimed by U.S. Patent Application Serial No. 08/871,004 filed June 6, 1997; and further that this Declaration is in response to the office action of Paper No. 3 mailed March 3, 1998.

Declaration of  
Robert Heinz Neumann  
Date Mailed: August 3, 1998

Title: **CAPSICUM BASED INSECTICIDE AND METHOD OF USE (once amended)**

2. Between 1979 and 1982 I studied commercial aeronautics in San Mateo, California. In 1984 I earned a Bachelor's of Science degree from the Department of Aeronautical Engineering at San Jose State University in San Jose, California.
3. Between 1976 and 1983 I worked as a construction worker for Horst Neumann Construction in Half Moon Bay, California doing termite and insect repair to homes damaged by termites and fungus.
4. Between 1984 and 1987 I served as office manager and inspector for Franz Pest Control, Inc. located in Palo Alto, California. In that capacity I managed termite inspectors and office staff, repaired and treated structures for termites and structural pests, and supervised chemical treatments and fumigations performed on structures in the area.
5. I am currently a licensed by the Structural Pest Control Board of the State of California as a Pest Control Operator, License No. OC7622.
6. Since 1987 I have been an owner-operator of Neu-Mite, Inc., a structural pest control firm located in Half Moon Bay, California. As general manager and owner, I have been involved in managing all aspects of the firm. Services we provide include treatment of structures with toxins for elimination of structural destroying pests, fumigation of homes infested with structural destroying pests, and repair of damage in structures caused from structural destroying pests. I have personally inspected more than five thousand two hundred (5,200) homes and other buildings to determine the extent of pest damage and to evaluate the likelihood of success for repair of damaged structural components. I personally prepare estimates on all jobs, including repairs, and provide additional customer service when needed.
7. During extensive testing of the insecticide of the patent application and its method of use since conception, I personally discovered that the methods for use of the formulations

described in my patent application are highly effective. I found that contacting a termite, spider, fungus or other insect or pest with even a small amount of insecticide consisting primarily of ground chile peppers in an aqueous solution results in rapid, uniform, consistent and, in many cases, long-term eradication and prevention of re-infestation. Spiders, bees and flies are efficiently exterminated, as are earthworms, nematodes and other soil animals and organisms. The outer, protein-like wings, shells or skin membranes of such insects are chemically dissolved and the integrity of internal structures becomes completely and irreversibly degraded.

8. In one experiment, approximately two (2) tablespoons of ground red hot chile peppers were placed in an outdoor water fountain containing about five (5) gallons of water which contained live mosquitoes and mosquito larvae. Within one day, the top surface of the previously scummed and larvae-containing surface of the water was clear and larvae and other debris lay on the bottom of the fountain. The water remained clear for several days.
9. In another experiment, a solution containing ground chile peppers was sprayed on fungus growing on the wood below the front porch of a home. The porch had developed a leak due to fungus destruction of the wood frame of the house. After several days, the fungus appeared dead and no new fungal activity was noted.
10. In another experiment, I mixed about one (1) tablespoon of ground chile peppers to one (1) pint of water and sprayed some onto a house fly. The fly was put into a box and died within ten (10) minutes.
11. In another experiment, I sprayed several spiders around a house with solution containing ground chile peppers. All of the spiders were killed in between two (2) and ten (10) minutes. Solution sprayed onto the egg sack of a spider dissolved the sack and appeared to damage the eggs, while the spider itself died quickly.

12. In a soil treatment experiment, I placed about one (1) tablespoon of ground chile peppers into about one (1) pint of water and sprayed the water solution onto approximately ten (10) square feet of exposed soil in a garden. Earthworms appeared to be killed very rapidly and no other insects appeared on the surface of the soil.
13. In the case of a subterranean termite infestation measuring about one (1) square foot, discovered in the yard around a residential home, a trench was dug around the infestation and approximately four (4) cups of very hot, ground chile peppers mixed with about five (5) gallons of water were used to saturate the trench and infestation. The following day, the soil surrounding the infestation was dug into revealing numerous dead termites and no living termite activity.
14. It is known that termites will build shelters and rain tubes using a protein-like saliva or excretion. The underground shelters and tunnel-like tubes are impervious to water, thus resisting decomposition during rainy weather. The capsicum or other capsaicin-containing insecticide solutions and methods of applying them such as described in my patent application cause unexpected and advantageous rapid dissolution of the domes and shelter tubes of termite nests and infestations, thereby assisting in the complete and permanent eradication of termites and other similar insects which would otherwise eventually cause damage to structures.
15. Another advantage and unexpected result of the present invention is that the capsicum or other capsaicin-containing insecticide solutions and methods of applying them such as described in my patent application are non-toxic to the environment. Since it is well documented that toxic pesticides or insecticides of the prior art travel down the food chain, these solutions are undesirable for the environment. The capsicum or other capsaicin-containing insecticide solutions naturally will decompose eventually, or become very dilute

in a wet environment. There does not appear to be any adverse effect upon birds, bats, rodents or other animals that may consume the dead bodies of exterminated insects.

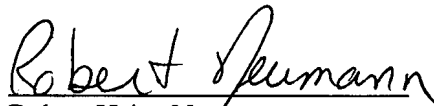
Furthermore, there is a great deal of evidence that certain small amounts of chile peppers or pepper-containing products are non-toxic to animals, and there are numerous cases of pets such as birds, dogs or cats becoming accustomed to eating foods containing such spices.

16. A further unexpected advantage of capsicum or other capsaicin-containing insecticide solutions and methods of applying them such as described in my patent application is that structures treated with such solutions are rendered effectively treated for a very long time. In the past several years, I have not observed re-infestation of treated structures. Termites do not re-appear in interior treated areas at all. Likewise, progression or spread of fungus or dry-rot is unexpectedly, completely arrested. Additionally, with regard to treatment of subterranean termite or other insect infestations, it appears that the capsicum or other capsaicin-containing insecticide solutions and methods of applying them such as described in my patent application render the treated and surrounding soil essentially uninhabitable to such insects for some extended period of time, determined largely upon the amount of subsequent rainfall or water moisture in the soil, the concentration of capsicum, etc.
17. Attached hereto are selected portions of the Pest Control Operator's of California Newsletter, Summer 1996 pages 20-29, inclusive, a publication associated with the State of California Structural Pest Control Board. As reported, various alternate methods described have been shown to be less than 100% effective. Such inefficient and ineffective various and alternate treatments include and are not limited to electro shock therapy, microwave radiation, etc. I am not aware of any previous description of the capsicum or other capsaicin-containing insecticide solutions and methods of applying them such as

described in my patent application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, Section 1001, and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Declarant:

  
Robert Heinz Neumann

Date: August 3, 1998